To: Schmittdiel, Paula[Schmittdiel.Paula@epa.gov]; Lewis, Brent[b1lewis@blm.gov]; Fagen, Elizabeth[Fagen.Elizabeth@epa.gov]; Lisa Richardson (lrichard@blm.gov)[lrichard@blm.gov]
From: Wall, Dan
Sent: Sun 3/15/2015 2:54:48 PM
Subject: FW: Recent EPA data in ARSG format
Recent EPA data in ARSG format.xlsx

FYI…

From: Peter Butler [mailto:butlerpeter2@gmail.com]
Sent: Friday, March 13, 2015 3:37 PM
To: Bill Simon; Steve Fearn; Larry Perino; Buck Skillen; Barb Horn
Cc: Wall, Dan
Subject: Recent EPA data in ARSG format

Hi Folks – Attached is a spreadsheet with data EPA has collected over the last 3 years. It is not in the ARSG database yet. They have collected a lot of information.

The spreadsheet has 6 tabs. The first three look a lot like what I pulled from EPA. I made very few adjustments in format. I didn't see a need to put these into the ARSG format because no one else is collecting this data. The second three tabs are data that I put into the ARSG format. It took quite a bit of effort. Here are some of my first impressions. I don't yet have pH or flow data for the water quality samples. I still need to get those from EPA.

Tabs:

1.   The first is sediment samples. I don't have a sense as to what concentrations are considered high, so I just looked at them from a comparative sense of one location compared to another. What strikes me is that there isn't much zinc in the sediments, probably because it is dissolved in the water column. The lead concentrations seem quite high, especially between Howardsville and Silverton. I also noticed that arsenic seemed comparatively higher than I might expect compared to other metals.

2.   The second tab is metal concentrations in macroinvertebrates and fish. My understanding is that the fish that say Howardsville were collected there and the other fish were collected near Cascade Creek, although Dan would have to confirm that.

3.   The third is metal concentrations in water where the collected sediments have been

placed. This test shows how metals in the sediments could impact water quality. This water is also used to test toxicity to macros. I'm sure Dan can explain this a lot better at our April meeting. I propose not putting this tab into the ARSG database. The data doesn't mean much to anyone unless they have a full toxicity report that explains all the steps taken. A full toxicity report on its own would be useful.

4.   The fourth is water quality. Some of the last samples I believe were used for quality assurance of the sippers, and there is not a very full suite of metals that were tested. Also, A75EC was designated in the sample plan as the mouth of Elk Creek. It really should have been A73EC. A73 is Elk Park.

5.   The fifth is sipper data. The 2013 sipper data seems to indicate a substantial lead source between Elk Park and Cascade, yet the 2014 data does not.

6.   The last tab is pore water. This was collected by sticking a stainless steel tube 8 -12 inches into the sediments of the river bottom. High metal concentrations could be indicative of high metals in the sediments or of a groundwater source with high metals. These samples give some indication of water that could impact macros. What stuck me is how high the concentrations are at A61 which is the Animas just above Boulder Creek. They are much higher than anywhere else, yet water samples taken from the river at this point are not especially significant.

Let me know your thoughts as you look through these. I have the data now that I can update the gage spreadsheets.

Peter Butler

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